



12CA5

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BEAM POWER TUBE

MINIATURE TYPE

*Intended for use in equipment having
series heater-string arrangement*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage.	12.6	 ac or dc volts
Current.	0.6	 amp
Warm-up time (Average)	11	 sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

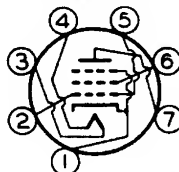
Direct Interelectrode Capacitances (Approx.):^o

Grid No.1 to plate	0.5	μ f
Grid No.1 to cathode & grid No.3, grid No.2, and heater.	15	μ f
Plate to cathode & grid No.3, grid No.2, and heater.	9	μ f

Mechanical:

Mounting Position.	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length.	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip).	2" $\pm$ 3/32"
Maximum Diameter	3/4"
Bulb	T-5-1/2
Base	Small-Button Miniature 7-Pin (JETEC No.E7-1)
Basing Designation for BOTTOM VIEW	.7CV

Pin 1 - Cathode,
Grid No.3
Pin 2 - Grid No.1
Pin 3 - Heater



Pin 4 - Heater
Pin 5 - Grid No.1
Pin 6 - Grid No.2
Pin 7 - Plate

AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE.	130 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	130 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive bias value.	0 max.	volts
PLATE DISSIPATION.	5 max.	watts
GRID-No.2 INPUT.	1.4 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	200 max.	volts
Heater positive with respect to cathode.	200 [▲] max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	180 max.	°C

^o Without external shield.

[▲] The dc component must not exceed 100 volts.

MAR. 1, 1955

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TENTATIVE DATA

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Typical Operation and Characteristics:

Plate Voltage.	110	125	volts
Grid-No.2 Voltage.	110	125	volts
Grid-No.1 Voltage.	-4	-4.5	volts
Peak AF Grid-No.1 Voltage.	4	4.5	volts
Zero-Signal Plate Current.	32	37	ma
Max.-Signal Plate Current.	31	36	ma
Zero-Signal Grid-No.2 Current.	3.5	4	ma
Max.-Signal Grid-No.2 Current.	7.5	11	ma
Plate Resistance (Approx.)	16000	15000	ohms
Transconductance	8100	9200	μ mhms
Load Resistance.	3500	4500	ohms
Total Harmonic Distortion.	5	6	%
Max.-Signal Power Output	1.1	1.5	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1 max. megohm
For cathode-bias operation	0.5 max. megohm

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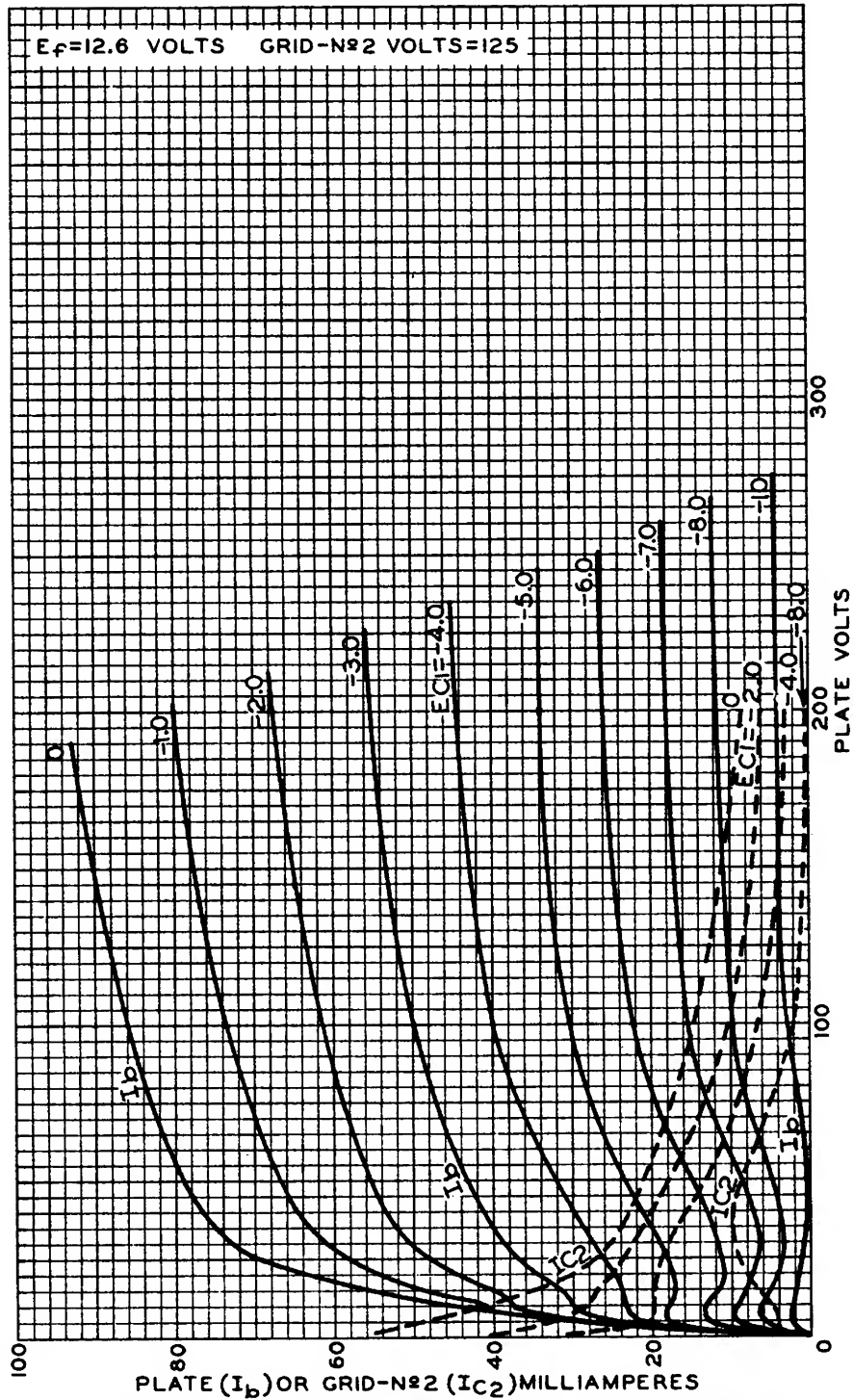
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AVERAGE PLATE CHARACTERISTICS



JAN. 24, 1955

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92CM-8507

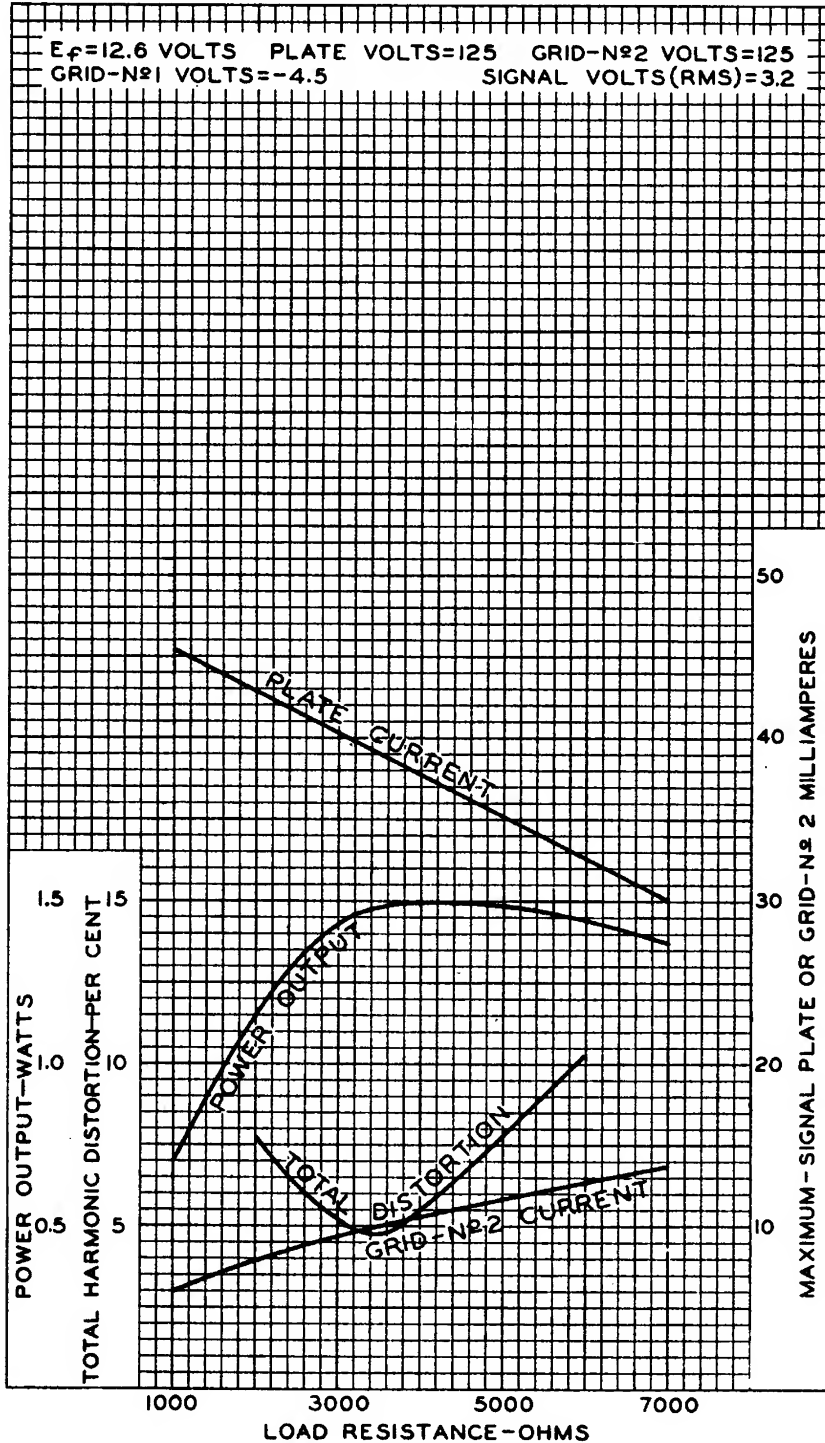
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OPERATION CHARACTERISTICS



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